Study of serum trace element levels in patients receiving nutritional therapy

Yoshinori Miura¹, Akinobu Kato², Kenichiro Ikeda³, Koichiro Sera⁴ and Akira Suwabe¹

¹Department of Clinical Pathology, Iwate Medical University
19-1 Uchimaru Morioka 020-8505 Japan

²First Department of Internal Medicine, Iwate Medical University
19-1 Uchimaru Morioka 020-8505 Japan

³First Department of Surgery, Iwate Medical University
19-1 Uchimaru Morioka 020-8505 Japan

⁴Cyclotron Research Center, Iwate Medical University
348-58 Tomegamori Takizawa 020-0173 Japan

Abstract

In late years importance of nutritional evaluation at a hospital is noted it. Therefore, at many hospitals, NST (Nutrition Support Team) came to operate. In the patient that ingestion is difficult, nutrition disorder by lack of trace element in the hyperalimentation which is main nutrient is presented.

We measured essential trace element by PIXE method out of serum in patients of decubitus and the arteriosclerosis obliterans and Crohn's disease that performed nutrition care. And I carried out comparison examination with those trace element value and nutritional assessments protein value. I compared Cu, Zn, Fe level in serum before NST interposition in the decubitus patient with reference value, and displacement was low, too. However, the serum Cu, Zn value of this patient after NST interposition recovered by basis range. The serum Zn value of the arteriosclerosis obliterans patient showed the change that reflected clinical condition. It was suggested that serum Fe, Cu, Zn, Se value of a patient with Crohn's disease reflected course of nutrition care and changed.